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ABSTRACT

This preliminary report summarizes a statewide (Iowa) survey which assessed the extent of the use of special care procedures in the public schools. Respondents included 873 schools including the 17 special schools which serve children with multiple disabilities. Reporting schools identified 460 students with requirements for special care procedures with the largest number of children in the 6-8 year age range. The students identified required 598 special care procedures in the school setting. The most common procedures included: delivery of medications via special means; intermittent urethral catheterization; delivery of feedings via gastrostomy tube; suctioning of the mouth or airway; care of a tracheostomy and use of a feeding pump; and administration of oxygen or use of a monitor. The survey found that 42% of students were being served in regular classroom settings and 30% in self-contained special classes. Registered nurses were the largest single provider of services (39%). A large number of schools identified the need for technical assistance in the areas of policy and procedures, inservice training, and resource materials. Tables detailing survey results are appended. (DB)

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A SURVEY OF SPECIAL HEALTH CARE PROCEDURES REQUIRED BY STUDENTS IN IOWA SCHOOLS

A preliminary report by

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February, 1990

EC 300401

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The increased availability and use of special care procedures enables many children and youth with chronic health conditions to more fully participate in daily living activities. A primary activity of children and youth is to attend school.

There has been no means available to assess the extent of the use of special care procedures in Iowa schools. Therefore in May of 1989 the Iowa Department of Education surveyed all public schools in the state, asking the building principal (or designee) to identify all students within their facilities who require special care procedures (health support systems) and the persons providing those services in the school.

This report summarizes the statewide survey results.

The survey

An explanatory letter and brief survey (attached) were mailed to 1636 building principals, including principals of 17 special schools which serve children with multiple disability. The survey was patterned after a questionnaire previously used in Massachusetts in Project School Care. Surveys were returned to the Iowa Department of Education and analyzed by staff at the Iowa Child Health Specialty Clinics of the University of Iowa.

Schools reporting

Of the 433 school districts in Iowa, 414 districts have fewer than 10 schools. The remaining districts have a greater number of schools, the largest being Des Moines with 64 schools. Overall 53% of Iowa schools (873 of 1636) responded to the surveys (Table 1), including all seventeen of the special schools who have children with multiple disability (Table 2). The percentage of schools reporting did not appear to vary by size of the

district. There was no attempt to ascertain reasons for non-reporting, although it is possible that a number of school administrators did not respond due to the absence of students in their facilities who require special care procedures.

Students with special care procedure needs

Reporting schools identified 460 students (and one teacher) with requirements for special care procedures (Table 3). The students were distributed throughout age groupings, with the largest number of children in the range of six through eight years. The very small number of preschool children reported (especially those of ages two and three years) probably is due to the low enrollment of children in classroom programs, as contrasted to home-based early intervention services. This latter group of children, many of whom have special health care needs, were not generally identified in this survey since they generally would not be served by school building personnel.

The students identified require 598 special care procedures (health support systems) in the school setting (Table 4). The most common procedures included: the delivery of medications via special means or routes of administration (154 students); intermittent urethral (bladder) catheterization (79 students); the delivery of feedings via gastrostomy tube (74 students); suctioning of the mouth or airway (40 students); care of a tracheostomy and use of a feeding pump (17 students each); and administration of oxygen or use of a monitor (15 students each). Five students were reported to be in school with ventilator support. Children with special care requirements due to selected chronic conditions (asthma, diabetes, physical disorders, spina bifida and other disorders) were identified although there were no specific

procedure categories in the survey form that defined the needs of such students.

Educational services provided

Of all students identified in the survey, 193 (or 42%) were being served in regular classroom settings (Table 5). Only 30% of the students were in self-contained special classes.

Registered nurses were the largest single provider of services (39%) although some children required multiple providers for a single service (Table 6). Paraprofessionals were the next largest provider of services (22%), but teachers participated in 16% of services delivered. Parents (8%) and the students themselves (10%) were the remaining major services providers.

Anticipating that registered nurses were not participants in all procedures, schools were asked to describe current nurse availability within buildings. Of 873 schools responding, 41% reported that registered nurses were available 25% or less of the time (Table 7). An additional 19% reported nurses were shared among several buildings or were part-time without indicating the percentage availability. Only 14% of schools had nurses available greater than 75% of the time.

Technical assistance needed

A large number of reporting schools identified the need for assistance in the areas of policy and procedures, inservice training, and resource materials (Table 8).

STATE OF IOWA

TERRY E. BRANSTAD, GOVERNOR

DEPARTMENT OF EDUCATION
WILLIAM L. LEPLEY, Ed.D., DIRECTOR

April 24, 1989

Dear Principal:

In the last two decades, we have witnessed a dramatic increase in the numbers of children who have survived previously life-threatening congenital malformations, chronic illnesses, and injuries. In the last five years, this population of youngsters has increased more rapidly as new medical technologies have been brought to bear on their problems. As a result, our school systems have the opportunity and responsibility to educate a new group of students with special health needs.

To ascertain the number of children using health support systems and their access to educational services is the major reason this survey was developed. The results of the survey will be helpful in the formation of state policies and procedures that will ensure the highest level of access to educational opportunities for these children. In addition, the results will be used to provide consultation, training, access to resources, and networking of services to all participants involved.

Please take time to complete this survey and return it by May 15, 1989. If you need assistance in completing this survey, please call Charlotte Burt or Steve Maurer at 515/281-3176. Thank you for your assistance.

Sincerely,

Steven A. Maurer, Consultant
Severely/Profoundly Handicapped

Charlotte J. Burt, Consultant
School Health Services

SAM,CJB/nb

Enclosure

GRIMES STATE OFFICE BUILDING/DES MOINES, IOWA 50319-0146

SURVEY

1. Please fill in the following for the person completing this form:

Name: _____

School District: _____

School Building: _____

Address: _____

_____

Telephone: _____ AEA: _____

Job Title: _____

2. Please describe the availability of a registered nurse in your building by checking the appropriate category:

|___| Full Time

|___| Part Time: 1-25%___ 26-50%___ 51-75%___ 76-99%___

|___| On Call

|___| None

3. What types of technical assistance do you feel you need in order to provide an appropriate education for these children. Please check all that apply:

_____ Development of policies and procedures

_____ Inservice training

_____ Resource materials

_____ Other (please specify): _____

K E Y

Column C. CLASS OPTIONS:

1. Regular education
2. Regular with modifications
3. Resource room
4. Special class with integration
5. Self-contained special class
6. Early intervention program (0-3 year olds)
7. Program for 3 and 4 year olds
8. Home-bound program
9. Other (please specify in Column C, Question 4)

Column D. HEALTH SUPPORT SYSTEMS:

1. Dialysis: Process of filtering body fluids using the peritoneum or a machine.

2. Electronic monitoring equipment: A device or instrument attached to the child that assesses a body function such as blood pressure, oxygen tension, or detects an abnormality such as apnea.

3. Feeding Pump: Machine used to provide NG/G-Tube feedings at a continuous rate.

4. Gastrostomy/Tube (G-Tube): A gastrostomy is a surgical opening in the stomach for the purpose of directly administering food, fluids, and medications.

5. Intravenous Apparatus: Tube surgically placed in a vein for treatment with medication or food.

6. Jejunostomy/Ileostomy/Colostomy: A temporary or permanent opening in the colon (colostomy), ileum (ileostomy), jejunum (jejunostomy). Ostomies are used to direct intestinal contents directly outside the body without passing through a specific portion of the intestine.

7. Nasogastric tube (N-G Tube or Orogastric tube): A nasogastric tube passes through the nostril, down the throat and esophagus, and into the stomach. An orogastric tube is passed through the mouth. It is used to instill fluids, feedings, and medications when the oral route cannot be used.

8. Oxygen (continuous or intermittent): Administration of oxygen to increase breathing efficiency. Oxygen may be administered to the child by nasal cannula prongs, mask, tent, or via child's tracheostomy tube.

9. Suctioning: The removal of secretions from the mouth, nose, trachea, or tracheostomy stoma so a clear airway is maintained for adequate air exchange.

10. Tracheostomy: An incision into the trachea (windpipe) with the insertion of a tracheostomy tube below the larynx (vocal chords) in order to establish and maintain an open airway.

11. Urethral Catheterization (continuous): A catheter is inserted into the urinary bladder and remains in place continuously.

Table 1

EDUCATION SURVEY - NUMBER OF REPORTING SCHOOLS

District Size # Schools	Districts #	Districts %	Total Schools #	Total Schools %	Schools Reported #	Schools Reported %
1-3	313	72	729	45	405	56
4-6	79	18	369	23	198	53
7-9	22	5	167	10	86	51
10-12	9	2	100	6	69	69
13-15	2	0	28	2	14	50
16-18	0	0	0	0	0	0
19-21	3	1	59	4	21	36
22-24	1	0	23	1	6	26
25-27	0	0	0	0	0	0
28-30	1	0	30	2	9	27
31-33	1	0	31	2	9	29
34-36	1	0	36	2	23	69
==						
64	1	0	64	4	33	52
Totals	433	100	1636	100	873	53
Special Schools			17		17	100
Regular Schools			1619		856	53

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Table 2

EDUCATION SURVEY - SPECIAL SCHOOLS

AEA	School Name	District Name	School Code	Students With Tech Asst Needs
01	Helen Keller*	Dubuque	3118630959	15
01	Antes Center	North Fayette	3347740900	0
02	Hampton Center	Hampton	3527810959	0
02	N.Central Human Svcs	Forest City	9522950900	0
03	Excep'nal Opp's	Burt	5509000900	4
04	River Valley	Rock Valley	8456070900	4
05	East Elem. Annex	Storm Lake	1162190900	1
06	Pleasant Hill	Marshalltown	6441040900	3
07	River Hills	Cedar Falls	0710440900	9
08	No school			
09	Truman*	Davenport	8216110573	9
10	Monroe Developmental*	Cedar Rapids	5710530959	7
11	Ruby VanMeter*	Des Moines	7717370988	11
11	Smouse*	Des Moines	7717370850	6
12	Riverside	Sioux City	9760390961	5
13	Yorktown	Clarinda	7311970959	0
14	Jefferson	Creston	8815030436	5
15	No school			
16	Central Avenue*	Burlington	2908820959	6

Total Schools: 17 # Cities: 16 # Students: 85 with technical assistance needs

*Indicates schools included in first draft of this report.

Table 3

EDUCATION SURVEY
NUMBER OF STUDENTS WITH SPECIAL HEALTH CARE NEEDS BY AGE

Age	Number of Students: Regular School #	Regular School %	Special School #	Special School %	Totals #	Totals %
2-3	2	1	3	4	5	1
4-5	23	6	16	19	39	8
6-8	100	27	24	28	124	27
9-11	84	22	9	11	93	20
12-14	58	15	8	9	66	14
15-17	57	15	8	9	65	14
18-20	25	6	15	18	40	9
21			2	2	2	0
36(teacher)	1	0			1	0
Unknown*	26	7			26	6
Totals	376	100	85	100	461	100

*The "unknown" category includes reports on 23 students that did not report the student's age. Reporters for 3 more students failed to report the student's age or class option.

Table 4

EDUCATION SURVEY - HEALTH SUPPORT SYSTEMS***

Support	Number of Students					
	Reg Schools		Spec Schools		Total	
	#	%	#	%	#	%
Dialysis	4	1	0	0	4	1
Monitor	15	3	0	0	15	3
Feed Pump	13	3	4	3	17	3
G-Tube	22	5	52	42	74	12
Intravenous Appar	13	3	1	1	14	2
Jej/Ile/Colostomy	10	2	3	2	13	2
N-G Tube	6	1	0	0	6	1
Oxygen	12	3	3	2	15	3
Suction	18	4	22	18	40	7
Tracheostomy	14	3	3	2	17	3
Urethral Cath(cont)	10	2	0	0	10	2
Urethral Cath(int)	76	16	3	2	79	13
Urostomy	11	2	0	0	11	2
Ventilator	5	1	0	0	5	1
High-tech meds	120	25	34	27	154	26
Low-tech meds	7	1	0	0	7	1
Asthma	40	8	0	0	40	7
Diabetes	11	2	0	0	11	2
Physical Support	18	4	0	0	18	3
Spina Bifida	5	1	0	0	5	1
Other Support**	43	9	0	0	43	7
Totals	473	100*	125	100*	598	100*

*Columns do not add up to 100% because of rounding.

**See next page.

***Multiple health support systems are reported for many students.

Table - (cont...ue

**Other support includes:

4-Wheelchair, no other description

1-Quadriplegic in wheelchair

1-Wheelchair; bronchial drainage

1-Wheelchair; cerebral palsy

7-Cerebral palsy

6-Muscular dystrophy

4-Hearing aid/problems

3-Orthopedic problems

2-Visually impaired

1-Aplastic anemia

1-Bee sting allergy (severe)

1-Cardiac pacemakers

1-Cystic fibrosis

1-Down's Syndrome

1-Feeding/breathing problems

1-Fredrick's Ataxia

1-Inspirix

1-Insulin pump

1-Milwaukee brace

1-Scoliosis/shunt/neurogenic bladder

1-Shunt

1-Speech/motor assistance

1-Systemic Lupus

Table 5

EDUCATION SURVEY - CLASS TYPE

Class Type	Number of Students Regular #	Regular %	Special #	Special %	Total #	Total %
Regular	192	51	1	1	193	42
With Modification	35	9			35	8
Resource Room	23	6			23	5
Spec. Class w/Integration	35	9			35	8
Self-Contained Special Class	57	15	81	95	138	30
Early Intervention 0-3	1	0	1	1	2	0
3 & 4 Years Old	7	2	1	1	8	2
Home-bound program	15	4	1	1	16	3
Other	2	1			2	0
Unknown*	9	2			9	2
Totals	376	100	85	100	461	100

* One respondent marked this field but failed to describe the class option. One respondent did not know the class option of a child. Six reports were incorrectly coded. The final person in this row is a teacher.

Table 6

EDUCATION SURVEY - CARE PROVIDERS***

Provider Type	Number of Students					
	Regular School		Special School		Total	
	#	%	#	%	#	%
RN	219	36	83	48	302	39
Special Ed	52	9	42	24	94	12
Regular Ed	34	6	0	0	34	4
Paraprofessional	135	22	33	19	168	22
Parent	63	10	2	1	65	8
Self	78	13	0	0	78	10
Secretary	10	2	0	0	10	1
Facility	5	1	0	0	5	1
Other	12	2	12	7	24	3
Totals	608	100%	172	100	780	100*

*Percentage error due to rounding.

**The "other" category includes:

Regular Students	Special Students
1-No description	7-Occupational/Physical/ Speech Therapist
1-Personal assistant	
1-First Responder	
1-Classmate	5-Meds. Manager
1-Health Coordinator	
1-Speech, Physical Therapist	
1-Principal	
2-Itinerate Teacher	
2-Personal Aide	
1-Auditory Trainer	

Four students are supervised, although they perform the procedures themselves; 4 caregivers have had inservice training.

***Multiple care providers are reported for many of the students.

Table 7

EDUCATION SURVEY - RN AVAILABILITY

Availability	Regular Schools # Sch	%	Special Schools # Sch	%	Totals # Sch	%
0. Unknown*	6	1			6	1
1. None	92	11			92	11
2. On Call	78	9	1	6	79	9
3. 1-25%	177	21	1	6	178	20
4. 26-50%	166	19			166	19
5. 51-75%	57	7	1	6	58	7
6. 76-99%	23	3	2	12	25	3
7. Full-time	85	10	12	71	97	11
8. Shared**	125	15			125	14
9. Other***	47	5			47	5
Totals	856	100	17	100	873	100

* Respondent failed to note nurse availability

** 1 nurse shared among 2 or more buildings

*** Respondent noted "part-time", but failed to note percentage

Comments are listed on following pages.

EDUCATION SURVEY - RN AVAILABILITY COMMENTS

Nurses Shared Among Schools:

Full-time

40-shared by 2 schools

16-shared by 3 schools

14-shared by 4 schools

15-shared by 5 schools

18-shared by 9 schools

10-shared by 10 schools

51-75% time

2-shared by 2 schools

3-shared by 3 schools

26-50% time

1-on call for 50%, 3 schools

1-25%

3-shared by 3 schools

12-shared by 4-5 schools

Part-time

7-shared by 2 schools

1-shared by 4 schools

On Call:

1-until 1:00 p.m.

1-always on call, in building once every 6 days

Other:

1-2 days per week

1-we use this person 3-4 times per year

1-will contract if needed

1-part time and on call, percentage not given

5-county nurse serves school

1-two different percentages given

23-also on call

6-part time, percentage not given

2-EMT/First Responders among school staff

2-Half time nurse & half time secretary

1-Health aide as well as nurse

1-Full time health aide, no nurse

1-Child has personal, full time nurse

1-Full time duty nurse & 60% time school nurse

2-AEA6 nurse

1-two nurses, 26-50% & 100%

Table 8

EDUCATION SURVEY - TECHNICAL ASSISTANCE NEEDED

Technical Need	Regular Schools #	Regular Schools %	Special Schools #	Special Schools %
Policy & Procedures	297	35	10	59
Inservice Training	269	31	11	65
Resource Materials	280	33	13	76
Other*	121	14	4	24%
# Reporting	856	53%	17	100%

*Responses in the "Other" category included:

1-Speech therapy on a daily, not consultative basis
1-Policy is currently being updated and formulated
28-I would want all these types of assistance if/when such children attend this school
7-Better communications between school staff, parents, caregivers
9-Increase health care staffing
5-AEA involvement and support
4-Funding for remodeling school, special equipment
1-No description
9-Training/inservice for staff
2-Unable to state what the school's technical assistance needs are
2-The children we have are self-serving
1-Actually, the kids seem to integrate quite well
6-Our school has its policies and procedures developed; no further assistance required
1-Need for specialized physical education, feeding
1-Parents refuse to catheterize child
1-Some need for this!
1-Praise for Charlotte Burt